



DEPARTMENT OF CHEMISTRY

Activities Organized



FEBRUARY 10, 2025
GURU NANAK COLLEGE
SRI MUKTSAR SAHIB

Department of Chemistry

Activities Organized

- An Educational Visit To Verka Milk Plant, Ludhiana on 04-11-2024.
- An Educational Visit of B.Sc. Students to MRSPTU, Bathinda on 12-03-2024.
- An Educational Visit to CUP, Bathinda under Star College Scheme, DBT, New Delhi on 03.03.2023.
- An Educational Visit of science students to IISER, Mohali under Star College Scheme of DBT, New Delhi on May 24 2022.
- Mentorship Programme for faculty members 30-09-2024 (Resource Person: Dr. Vimal Mehta, Assistant Professor Physics, Sri Guru Teg Bahadur Khalsa College, Anandpur Sahib)
- One-Week Workshop on Proteus Software, Machine Learning and Cyber Security on August 07-13, 2024 (Resource Person: Dr. Navdeep Goyal, Department of Electronics and Communication Engineering, Yadavindra College of Engineering, Punjabi University Guru Kashi Campus, Talwandi Sabo, Bathinda, Punjab; Dr. Manish Jindal, Director and Professor, Dept of Computer Science, Panjab University Regional Centre, Muktsar; Dr. Monika Bansal, Associate Professor, Dept of Computer Science, SSD Girls College, Bathinda)
- Rangoli Competition to observe International Ozone Day on 16-09-2024.
- One Day Workshop on “Hands on Training on UV-Vis Spectrophotometer” on 17-09-2024 (Resource Persons: Dr. Amanpreet Kaur, Assistant Professor, Department of Chemistry, Guru Nanak Dev University Amritsar Punjab; Dr. Nivedita Chaudhri, Assistant Professor, Department of Chemistry, Guru Nanak Dev University, Amritsar, Punjab).
- Three Days Workshop on Mathematics for Chemists on Oct. 08-10, 2024 (Resource Person: Ms. Navneet Rana Assistant Professor in Mathematics, GNC,

Sri Muktsar Sahib)

- Workshop on Chemistry Practicals on Volumetric Analysis to students of School of Eminence, Bariwala on 25-10-2024.
- Extension lecture on Metal Organic Frameworks (MOF's): The Next Generation of Materials for Advanced Applications on 17-09-2024 (Resource Person: Dr. Amanpreet Kaur, Assistant Professor, Department of Chemistry, Guru Nanak Dev University, Amritsar, Punjab)
- Extension lecture on Spectroscopic Techniques: Principles, Types and Applications on 17-09-2024 (Resource Person: Dr. Nivedita Chaudhri, Assistant Professor, Department of Chemistry, Guru Nanak Dev University Amritsar Punjab).
- Extension lecture on Stereochemistry on 20-09-2024 (Resource Person: Dr Sudesh Kumar, Associate Professor, Department of Chemistry, DESM, National Institute of Education and National Council of Education for Research and Training, New Delhi).
- Extension lecture on Chemistry of Drug Discovery and Development on 23-09-2024 (Resource Person: Dr. Vinod Kumar, Professor, Department of Chemistry, Central University of Punjab, Bathinda)
- Extension lecture on Intellectual Property Rights: Protecting Creativity and Innovation on 23-09-2024 (Resource Person: Dr. Rakesh Kumar, Assistant Professor, Department of Chemistry, Central University of Punjab, Bathinda).
- Extension lecture on Organic Reactions: Mechanistic Studies and Applications on 10-10-2024 (Resource Person: Dr. Pushpinder Singh, Assistant Professor in Chemistry, DAV College, Sector 10, Chandigarh).
- Extension lecture on Role of Chirality and Asymmetric Synthesis in Chemistry on 21-10-2024 (Resource Person: Dr. Aman Bhalla, Associate Professor,

Department of Chemistry and Centre of Advanced Studies in Chemistry, Panjab University, Chandigarh).

- Extension Lecture on Visualization Chemistry: Molecular Geometry and Substitution reactions on 15-03-2024 (Resource Person: Dr. Ritesh Kumar, Assistant Professor in Chemistry, Central University of Punjab, Bathinda)
- Extension Lecture on NMR as a tool for structure elucidation of chemical Compounds on 15-03-2024 (Resource Person: Dr. Vinod Kumar, Associate Professor in Chemistry, Central University of Punjab, Bathinda)
- Intercollege Competitions Poster presentation, Rangoli and Leaf Art, Quiz Contest, PPT, Model/Project Presentation to celebrate National Science Day - 2024 on 18-03-2024 (Judges: Dr. Manish Kumar, Assistant Professor in botany, Dev Samaj College for Women, Ferozpur and Dr. Bhawandeep Kaur Uppal, Assistant professor, University College, Jaito).
- Extension lecture on X-ray Diffraction from Basics to Applications on 18-03-2024 (Resource Person: Dr. Rajesh Kumar, Department of Physics, Panjab University, Chandigarh).
- Extension lecture on Emerging trends and future directions thermoelectric materials research on 18-03-2024 (Resource Person: Prof. Ranjan Kumar, Department of Physics, Panjab University, Chandigarh).
- Extension lecture on Porphyrins: The Pigments of Life (Resource Person: Dr. Nivedita Chaudhry, Assistant Professor, GNDU, Amritsar 20-03-2024).
- Extension lecture on Pathways towards Green Hydrogen Production: Challenges and Production on 20-03-2024 (Resource Person: Dr. Amanpreet Kaur, Assistant Professor, GNDU, Amritsar).
- One Day National Webinar on Radiation Detection and Measurement on 21-3-2024 (Resource Person: Dr. Sarbjit Singh, Ex-Scientific Officer, BARC).

- Extension lecture on Chemistry in Three-Dimensions: Stereochemical Reactions on 22-03-2024 (Resource Person: Dr. Pushpinder Singh, Assistant Professor, DAV College, Sector 10, Chandigarh).
- Mentorship Programme for Grant Utilization on 23-03-2024 (Resource Person: Dr. Vimal Mehta, Assistant professor SGTB, Khalsa College, Sri Anandpur Sahib).
- One day Seminar on Open Source Softwares on 26-03-2024 (Resource Person: Dr. Subhash Chander, Associate Professor, University College Jaito).
- Workshop on Ethical Hacking on March 27- 29, 2024 (Resource Person: Mr. Mohit Yadav, Founder, Director at CRAW Security).
- National Webinar on Oxidation and Reduction on 28-03-2024 (Resource Person: Dr. Amarjeet Kaur, Assistant Professor in Chemistry, Panjab University, Chandigarh).
- National Webinar on Nanotechnology and experimental techniques 30-03-2024 (Resource Person: Deep Shikha, Assistant Professor SGTB, Khalsa College, Sri Anandpur Sahib).
- An essay writing competition to contribute in G-20 Presidency on the theme “Vasdhaiva Kutumbakam”, the NCC unit of college on 15.07.2023.
- SSCD Activity: July 2023-: An awareness lecture on the theme ‘Anti Drug’ on 28-07-2023 (Lecture delivered by Lt. Kamaljeet Kaur, ANO, College NCC Army Unit).
- SSCD Activity: August 2023-: An awareness lecture on the theme ‘Beti Bachao Beti Padhao’ on 05.08.2023 (Lecture delivered by Ms. Kirandish Kaur, CTO, College NCC Unit).
- SSCD Activity: September 2023: An awareness lecture on the theme ‘Anti Dengue’ on 26.09.2023 (Lecture delivered by Dr. Harpreet Kaur, Incharge, Extension Activities Committee of Guru Nanak College, Sri Muktsar Sahib).

- SSCD Activity: October 2023: An awareness lecture on the theme ‘Women Empowerment’ on 31-10-2023 (Lecture delivered by Dr. Harpreet Kaur, Incharge, Extension Activities Committee of College and Ms. Kirandish Kaur CTO, Naval Unit NCC to aware the NCC cadets and students of college).
- An awareness talk on the topic ‘Importance of Millets’ on 24.11.2024 (Lecture delivered by Ms. Kirandish Kaur CTO, Naval Unit NCC).
- SSCD Activity: November 2023: An awareness lecture on the theme ‘Pollution Control (Say No to Plastic)’ on 24.11.2023. (Lecture delivered by Dr. Mandeep Kaur Dhillon, Incharge, NSS Unit of College and Ms. Rupinder Kaur, Assistant Prof. in Fashion Designing).
- A bridge course of chemistry subject for 10+2 students in college on 03-06-2023.
- A Workshop on Chemistry Equipments on March 25-27, 2023.
- Training Programme on C and C++ Programming on March 10-15, 2023 under Star College Scheme, DBT.
- A One Day Seminar on Gender Equality and Women Empowerment: Perspectives and Analysis sponsored by CDC, PU Chandigarh and organized by Legal Literacy Club and Extension Activities Committee of college on 13.02.2023.
- Poster Presentation and Rangoli Competition to observe National Chemistry Week under Star College Scheme, DBT on 22.10.2022.
- Orientation-cum-Interaction Programme for B.Sc. (Med. & N.Med.) I, II, III organized by Department of Basic Sciences on 22.10.2022.
- National Youth Parliament Festival-2023 in Online Mode (Live event through Projector) organized in Center Hall of Parliament on March 01-02, 2023.
- Social Service Community Development (SSCD) Activity: March 2023- An awareness lecture on the theme ‘Waste Management’ is organized in college

campus on March 31, 2023 (Lecture delivered by Dr. Mandeep Kaur Dhillon, Incharge, College NSS unit).

- SSCD Activity: April 2023-: An awareness lecture on the theme 'Energy Conservation' on April 28, 2023 (Lecture delivered by Ms. Kirandish Kaur, CTO, College NCC Unit).
- An activity to observe Puneet Sagar Abhiyan on the theme Earth Day-2023, an activity of slogan display is organized in college campus on 28.04.2023.
- A Painting Competition on the theme 'Say No to Plastic Bags' is organized on 28.04.2023.
- SSCD Activity: May 2023: An awareness lecture on the theme 'Drugs Destroys Life' in May 2023 (Lecture delivered by Dr. Harpreet Kaur, Incharge Extension Activities Committee of college).
- SSCD Activity: June 2023: An awareness lecture on the theme 'Water Conservation' in college campus on 05.06.2023.
- An awareness lecture, Poster Presentation Competition and Pledge on 'World Environment Day 2023' in collaboration NCC Unit, NSS unit and Eco and Go Green Club of college to aware the participants to protect the environment on 05.06.2023 under Meri Life Campaign.
- International Day of Yoga celebration by Naval NCC unit in collaboration NCC Army wing, NSS Unit and Department of Physical education of college celebrated on 21.06.2023.
- An awareness lecture to observe International Day against Drug Abuse & ILLICIT Trafficking to aware the participants regarding drug abuse and its consequences on 22.6.2023 (Lecture delivered by CTO Ms. Kirandish Kaur).
- Tree Plantation Drive by NCC Unit in June 2023.

- An awareness lecture on the theme 'Anti-Drug' participate in Social Service Community Development Activity of NCC for the month of July 2023 on 25.07.2023.
- An essay writing competition to contribute in G-20 Presidency on the theme "Vasdhaiva Kutumbakam".
- An awareness lecture on the theme 'Beti Bachao Beti Padhao' to participate in Social Service Community Development Activity of NCC for the month of August 2023 on 05.08.2023.
- A pledge celebration under the 'MERI MAATI MERA DESH' scheme and participated in Har Ghar Tiranga Campaign in collaboration with NSS Unit of college on 14.08.2023.
- An awareness lecture on Environment Awareness on the topic 'Water Conservation and Rain Water Harvesting' to contribute in G-20 Presidency on the theme "Vasdhaiva Kutumbakam", on 14.08.2023 in collaboration with NSS Unit of college.
- A cleanliness drive of plastic collection under Puneet Sagar Abhiyan 18.08.2023.
- Department Farewell Event for B.Sc. III (Med & Non. Med) and M.Sc. Physics II on 25.04.2023.
- Vigilance Awareness Week 2021 (26th October to 1st November 2021) Vigilance Awareness week on theme "Independent India@75: Self Reliance with integrity" and organized Pledge ceremony, Slogan Writing Competition, Essay Writing Competition, online Elocution Competition and e-Quiz Competitions.
- Orientation-cum-Interaction Programme for B.Sc. (Med. & N.Med.) I, II, III and M.Sc. (Physics) I & II held on 13.09.2022.
- e-Quiz competition on International Women Day on the theme 'Gender equality today for a sustainable tomorrow' on 08.03.2022.

- Inter-School and Inter-College Online Competitions to observe National Science Day-2022 on theme 'Integrated Approach in Science and Technology for Sustainable Future' held on March 15-17, 2022 under Star College Scheme of DBT, New Delhi.
- Inter-School and Inter-College Online Competitions of Poster Presentation to observe National Science Day-2022 on theme 'Integrated Approach in Science and Technology for Sustainable Future' on 16.03.2022.
- Two Days National Seminar on Recent Advances in Sciences and its Application (RASA-2022) held on 25.03.2022-26.03.2022 under Star College Scheme of DBT, New Delhi
- Webinar in Two days National Seminar in Sciences on the topic 'Crystallography' on 25.03.2022 (Resource person Dr. Subash Chandra Sahoo, Assistant Professor in Chemistry, Department of Chemistry, Panjab University, Chandigarh.
- Mentorship Program conducted to understand the management and utilization of grant received under Star College Scheme of DBT, New Delhi on May 20, 2022.
- Workshop on C and C++ Programming held on May 4-9, 2022; Guru Nanak College, Sri Muktsar Sahib under Star College Scheme of DBT, New Delhi.
- Department Farewell Part for B.Sc. Medical & Non-Medical and M.Sc. Physics II on 10.06.2022 (Batch 2021-22).
- Prize Distribution function of National Science Day-2022 held in College Campus on 21.03.2022.
- World Environment Day-2022 on Theme: "Only One Earth" with focus on 'Living Sustainably in Harmony with Nature' on 05.06.2022.
- Organized extension activity to install safety reflectors on vehicles in collaboration with *Sarbat da Bhala* Charitable Trust, Sri Muktsar Sahib &

Traffic Police, Sri Muktsar Sahib to aware the road users and to save their lives from road accidents on 08-01-2021.

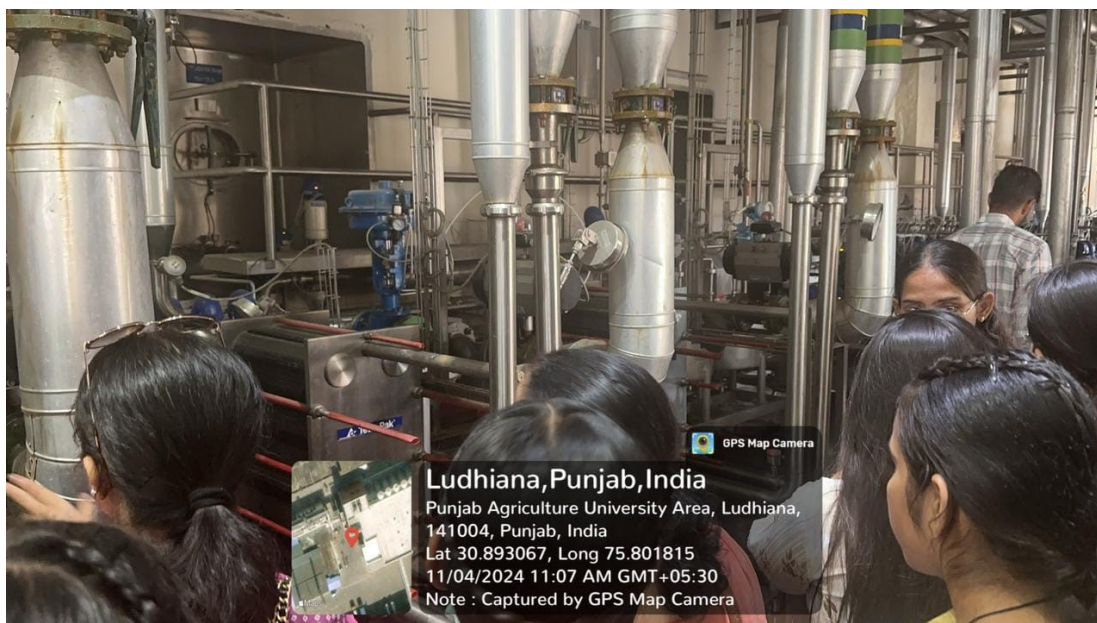
- *Gurmat Sammelan* in collaboration with *Shiromani Gurdwara Parbandhak Committee (SGPC)*, Sri Amritsar Sahib in *Bhai Maha Singh Diwan Hall, Gurudwara Tutti Gandhi Sahib*, Sri Muktsar Sahib on Maghi Festival 13-01-2021.
- A campaign (both in offline and online mode) on “SAY NO to Chinese Kite String to ensure the safety of the birds from Chinese kite string during the festival of Basant Panchmi on 16.02.2021.
- An inter-college competition to mark World Environment Day on theme “Ecosystem Restoration” on 05-06-2021.
- A webinar “Conservation of Plant Biodiversity” to celebrate International Day for Biological Diversity by Resource person Dr. Manish Kapoor, Associate Professor, Department of Botany, Punjabi Univ. Patiala, held on 20.05.21.
- An “Legal Awareness Programme” in collaboration with District Legal Services Authority, Sri Muktsar Sahib on 10.06.2021 (Resource person: Ms. Aman Sharma, Civil Judge (Sr. Dvn)/Secretary DLSA, MKT).
- One day National webinar on Martyrs’ Day jointly organized by Department of Basic Sciences and Legal Literacy Cell Guru Nanak College, Sri Muktsar Sahib in collaboration with District Legal Services Authority, Sri Muktsar Sahib on 23.03.2021.
- An Awareness Programme to celebrate ‘International Women’s Day-2021’ based on different issues and challenges faced by women organized on 08.03.2021.
- 5-online competitions organized to celebrate Van-Mahotsav-2021 on 7th July, 2021.
- Department Farewell Event for B.Sc. III and M.Sc. Physics II on 10.08.2021.

- A webinar on the topic “Free Legal Services, Victim Compensation Schemes and Lok Adalats, Mediation and NALSA schemes” in collaboration with Legal Services Authority, Distt. Muktsar on 22.12.2020
- A webinar on the topic “Free Legal Services, Fundamental Duties, Victim Compensation Schemes and Children related Laws/Schemes” in collaboration with District Legal Services Authority, Distt. Muktsar on 11.11.2020
- A webinar on the topic “Vigilant India, Prosperous India” organized during the observance of Vigilance Awareness Week-2020 on theme *Satark Bharat, Samriddh Bharat (Vigilant India, Prosperous India)* in collaboration with Central Vigilance Commission (CVC), New Delhi & Vigilance cell, Panjab University, Chandigarh on 28.10.2020.
- Online essay writing competition, online quiz competition, online poster presentation/digital poster presentation and speech competition to celebrate National Chemistry Week 2020 (Theme: Sticking with Chemistry) on 24.10.2020
- One day National Seminar on Legal Awareness sponsored by National Commission for Women, New Delhi held at Guru Nanak College for Girls, Sri Muktsar Sahib on 26.02.2020.
- National Seminar on Emerging Research Trends in Experimental Physics on 22.02.2019.
- DST INSPIRE Internship Camp organized by Department of Basic Sciences on 23-27 September 2019.
- Two-day BRNS-IANCAS National workshop on Nuclear Sciences and Applications of Radioisotopes on 9-10 March, 2019.
- Organized quiz competition in Pratibha 2018: Interschool Competitions on 24.01.2018.

Department of Chemistry
Glimpses of Some Activities



An Educational Visit to Verka Milk Plant on 04-11-2024



An Educational Visit to Verka Milk Plant on 04-11-2024



Mentorship Programme on 30-09-2024

(Resource Person: Dr. Vimal Mehta, Assistant Professor Physics, Sri Guru Teg Bahadur
Khalsa College, Anandpur Sahib)





One-Week Workshop on Proteus Software, Machine Learning and Cyber Security on August
07-12, 2024



Rangoli Competition to observe International Ozone Day on 16-09-2024.



One Day Workshop on “Hands on Training on UV-Vis Spectrophotometer” on 17-09-2024



Three Days Workshop on Mathematics for Chemists on Oct. 08-10, 2024



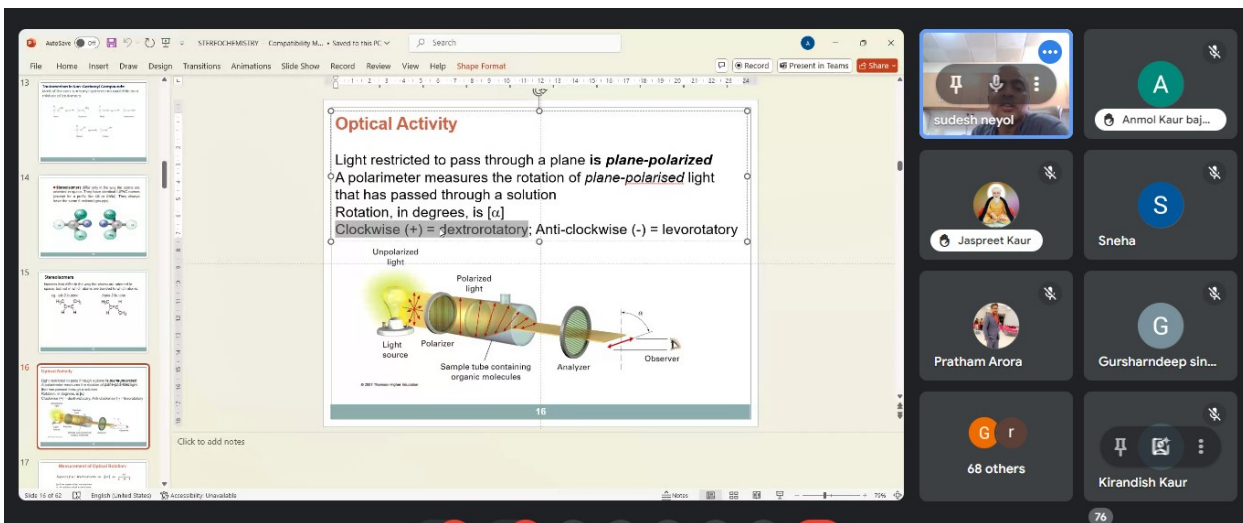
Workshop on Chemistry Practicals on Volumetric Analysis to students of School of Eminence, Bariwala on 25-10-2024.



Extension lecture on Metal Organic Frameworks (MOF's): The Next Generation of Materials for Advanced Applications on 17-09-2024



Extension lecture on Spectroscopic Techniques: Principles, Types and Applications on 17-09-24



Extension lecture on Stereochemistry on 20-09-2024



Extension lecture on Chemistry of Drug Discovery and Development on 23-09-2024



Extension lecture on Intellectual Property Rights: Protecting Creativity and Innovation on 23-09-2024

Aman Bhatta (Presenting)

Biological significance of chirality: (Need for asymmetric synthesis)

- The world around us is 'chiral'. Biological macromolecules of living systems are chiral.
- A drug molecule, which is 'chiral' and has two enantiomers, thus will have *different* interaction with the receptor site which is chiral also.
- This different interaction leads to different biological effects of two enantiomers of a 'chiral drug'.

Enzyme

Anionic site Not Occupied Flat area

(+)-Epinephrine

Poorer Fit \Rightarrow Less Active

Anionic site Occupied Flat area

(-)-Epinephrine

Better Fit \Rightarrow More Active

Participants in the video call:

- Kirandish Kaur
- Aman Bhatta
- rippandeepkaur...
- Amreet Kaur
- Tanish Kumar
- Shavneet
- Jagdeep Singh
- 35 others
- Kirandish Kaur

Extension lecture on Role of Chirality and Asymmetric Synthesis in Chemistry on 21-10-2024



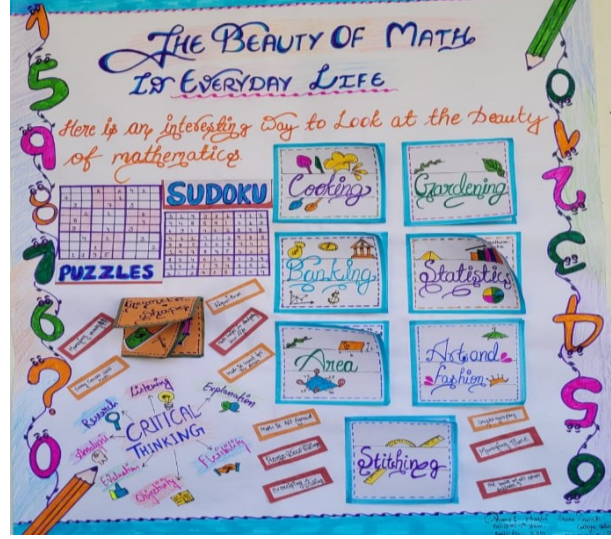
Extension Lecture on Visualization Chemistry: Molecular Geometry and Substitution reactions
on 15-03-2024



A One Day Educational Visit of B.Sc. Students to MRSPTU, Bathinda on 12-03-2024.



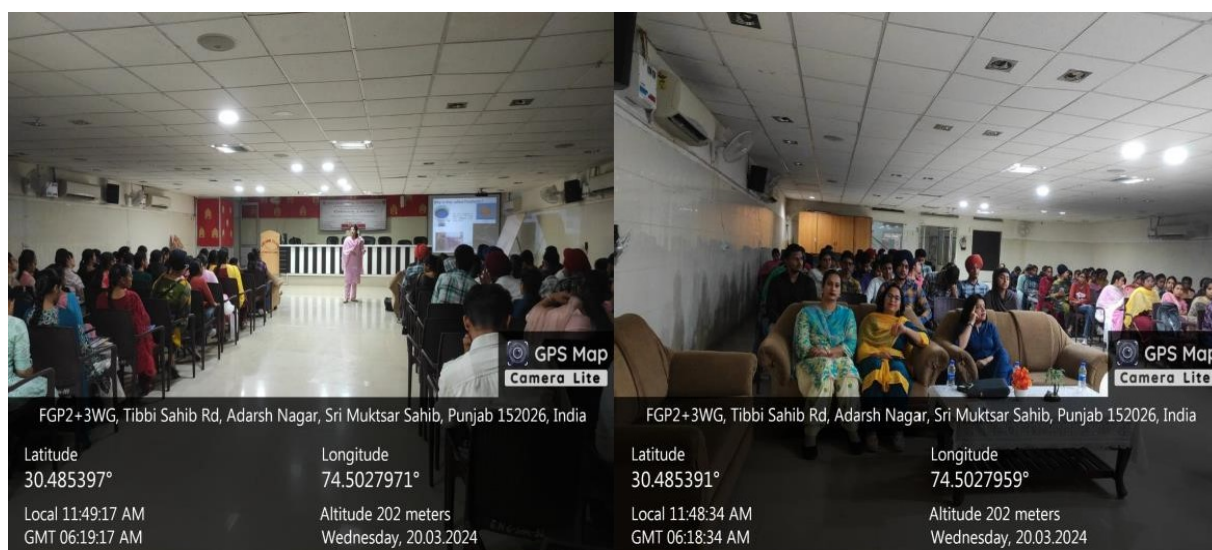
Extension Lecture on NMR as a tool for structure Illuciadation of chemical Compounds on 15-03-2024



Intercollege Competitions Poster presentation, Rangoli and Leaf Art, Quiz Contest, PPT, Model/Project Presentation to celebrate National Science Day -2024 on 18-03-2024



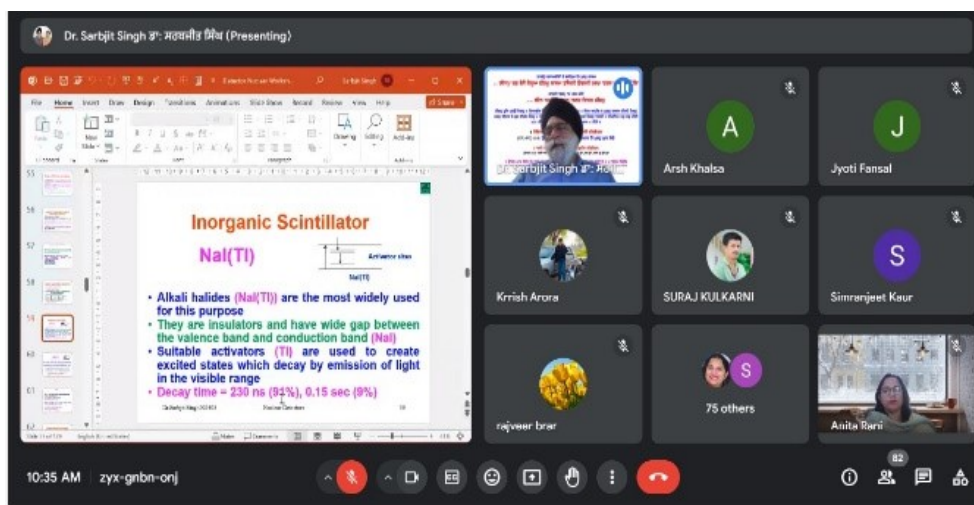
Extension lecture on Emerging trends and future directions thermoelectric materials research on
18-03-2024



Extension lecture on Porphyrins: The Pigments of Life on 20-03-2024



Extension lecture on Pathways towards Green Hydrogen Production: Challenges and Production on 20-03-2024



One Day National Webinar on Radiation Detection and Measurement on 21-3-2024



Mentorship Programme for Grant Utilization on 23-03-2024



One day Seminar on Open Source Softwares on 26-03-2024



Workshop on Ethical Hacking on March 27- 29, 2024

amarjit kaur (Presenting)

Examples

PbO – oxidising agent (experiences reduction)

Mg + PbO → MgO + Pb

Loss of oxygen ---- reduction

Gain of oxygen ---- oxidation

Mg – reducing agent (experiences oxidation)

amarjit kaur

Davinder shakya

CHEMISTRY - BSC

Ishpreet kaur

68 others

Anita Sharma

National Webinar on Oxidation and Reduction on 28-03-2024



Dr Sandeep Kaur: Inaugural Session



Dr. Inderjot Kaur: Expert talk



Sh. Mahesh Grover: Expert talk

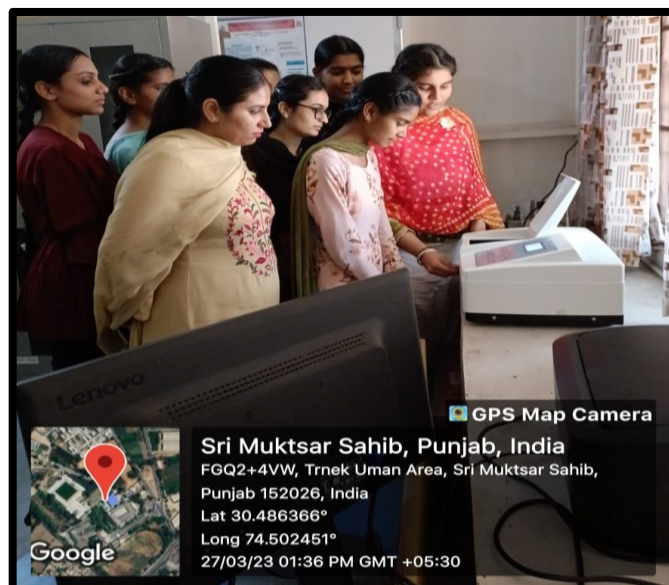


Dr. Gurpreet Kaur: Expert talk

A One Day Seminar on Gender Equality and Women Empowerment: Perspectives and Analysis sponsored by CDC, PU Chandigarh on 13.02.2023



Educational Visit to CUP, Bathinda under Star College Scheme, DBT on 03.03.2023



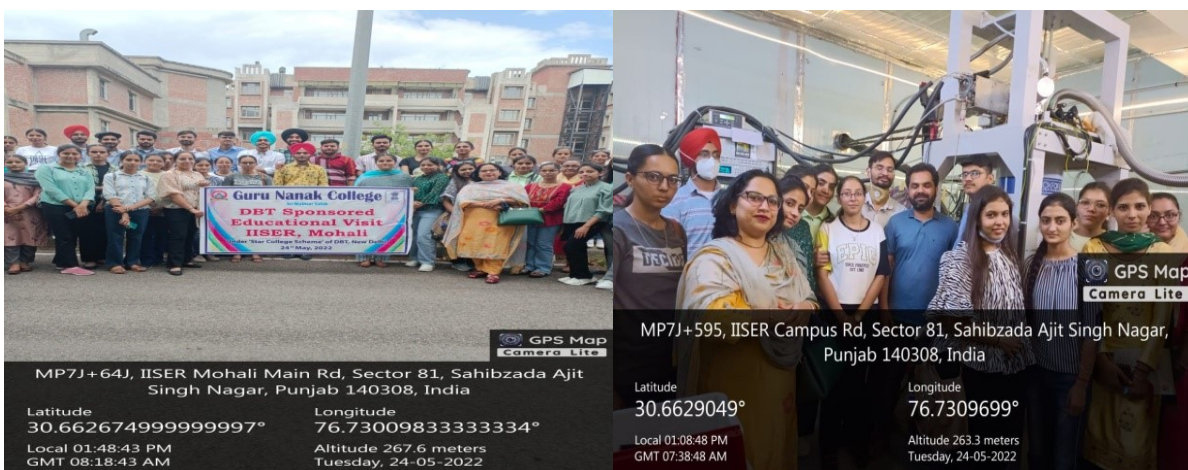
Workshop on Chemistry Equipments on March 25-27, 2023



Training Programme on C and C++ Programming on March 10-15, 2023 under Star College Scheme, DBT



Poster Presentation and Rangoli Competition to observe National Chemistry Week under Star College Scheme, DBT on 22.10.2022



Educational Visit of science students to IISER, Mohali under Star College Scheme of DBT, New Delhi on May 24, 2022.



Sri Muktsar Sahib, Punjab, India

FGM2+JX4, NH754, Trnek Uman Area, Sri Muktsar Sahib, Punjab

152115, India

Lat 30.485338°

Long 74.50239°

20/05/22 01:08 PM

Mentorship Programme on 20-05-2022